NEW

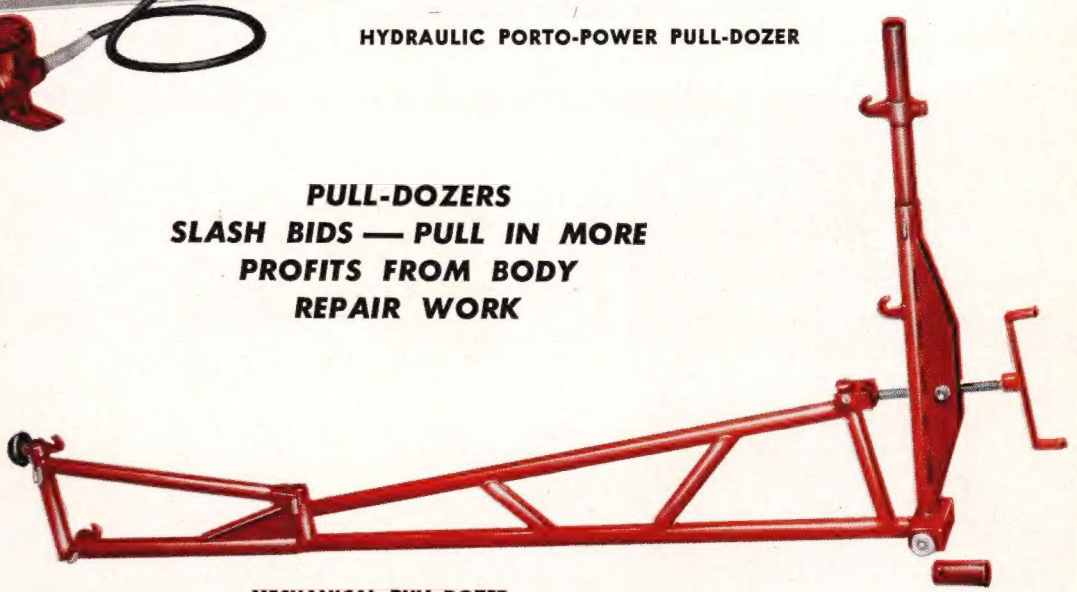
OWNER'S
MANUAL-CATALOG
Catalog No. P-51-B
Supplements Catalog No. P-51

Revolutionary auto-body repair method!

PULL-DOZERS

HYDRAULIC PORTO-POWER PULL-DOZER

PULL-DOZERS
SLASH BIDS — PULL IN MORE
PROFITS FROM BODY
REPAIR WORK



MECHANICAL PULL-DOZER

BLACKHAWK®

BLACKHAWK MFG. CO., MILWAUKEE 46, WISCONSIN

"Another Porto-Power Product"

BLACKHAWK

builder of your bread and butter tools

. . . world-famous Porto-Power body repair jacks . . .

NOW BRINGS YOU A REVOLUTIONARY AUTO BODY REPAIR METHOD

. . . to help you slash bids while you make more profit than you dreamed possible from modern car body damage

THESE ARE THE BODY REPAIR PROBLEMS THAT BLACKHAWK® SET OUT TO SOLVE FOR YOU

That's right! Convex curves, concave curves . . . fantastic front ends, rear ends and headlights—with fewer and fewer solid body-jack pushing points. This used to add up to trouble because it was almost impossible for you to get inside to push out damage the way you normally would . . . BUT NOT ANYMORE! Now with Blackhawk Pull-Dozers you can repair the toughest sheet metal damage quickly, easily on late model cars.

- **Work entirely from outside the car**
- **Pull damage in a straight line from point of impact**
- **Work everywhere around the car**
- **Bring the tool to the work**

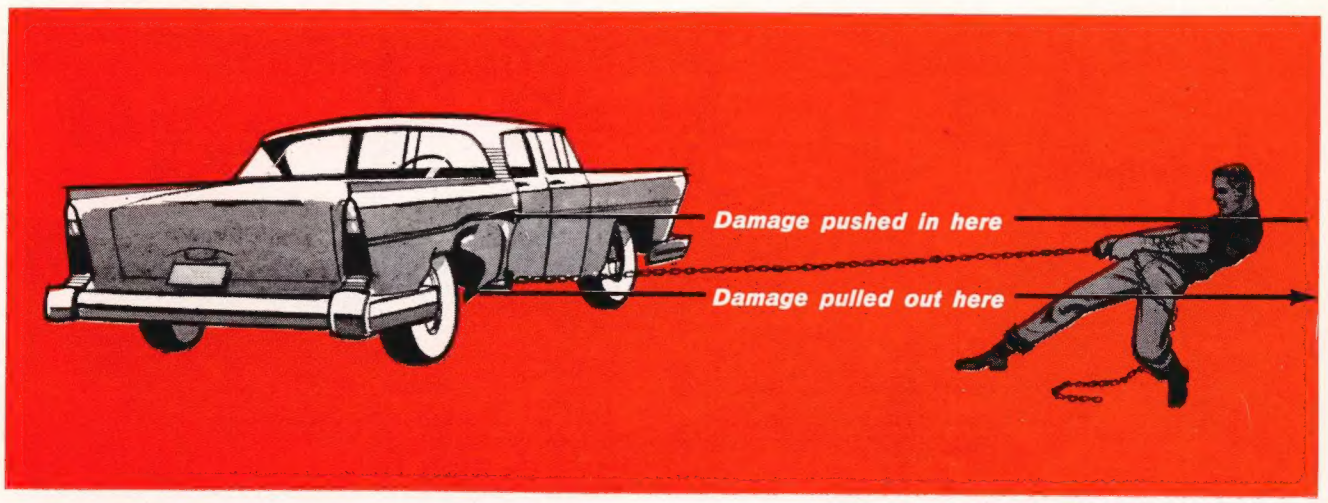
After 3 years of research, engineering and testing -- Blackhawk developed a key engineering principle and . . . . .

Copyright Blackhawk Mfg. Co. 1958

THE ONLY MODERN WAY TO REPAIR MODERN CAR BODIES...

THIS IS IT!

Pull out damaged metal by straight line pulling from outside the car

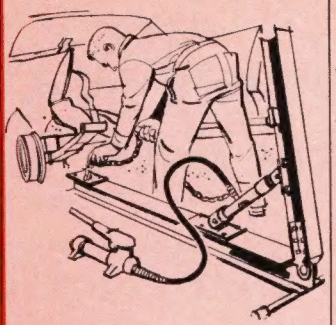


Designed for body, fender and sheet metal pulling, PULL-DOZER is your means to competitive bids that get the business

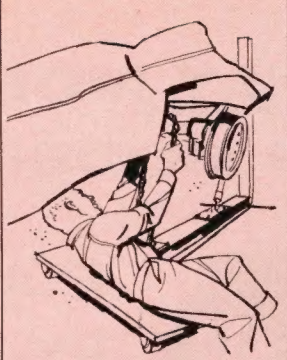
Now you can up your profits by repairing instead of replacing ....with **PULL-DOZER**

. . . built a new Porto-Power method around it!

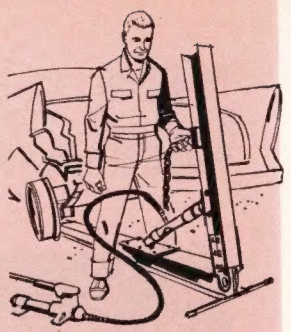
This quick demonstration shows how* PULL-DOZERS *are easy to hook up, easy to use. Restores damaged metal to original condition in minutes.



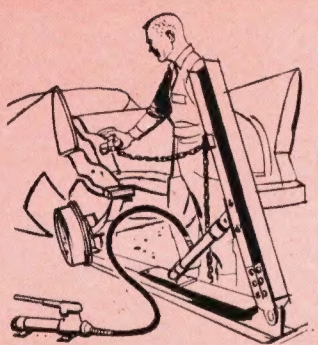
Attach 6-foot chain to anchor hook at far end of horizontal beam of Pull-Dozer. Glide unit underneath car, with Pull-Dozer as close as possible to damaged sheet metal area to be pulled out.



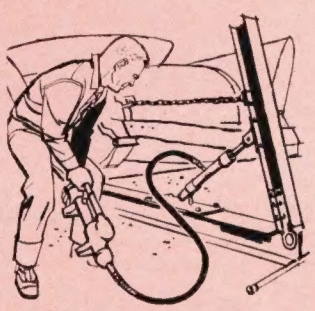
Wrap chain around frame of car or other suitable anchoring point and hook into link. If necessary, jack up rear of car to obtain clearance.



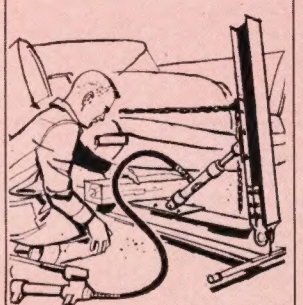
Attach 4-foot chain to sliding Mast Clamp hook located on Pull-Dozer's vertical beam. Tighten clamp, make sure that chain will be in straight line with damaged sheet metal to be pulled.



Put appropriate attachment on damaged area. With some attachments, such as the Flat Pull Plate (see pg. 11), it may be necessary to punch a hole in the sheet metal prior to placing attachment. Hook 4-foot chain to attachment.



Make a few test pumps by activating pump handle. After tension is setup, check all hook-up points for proper positioning for straight line pull.



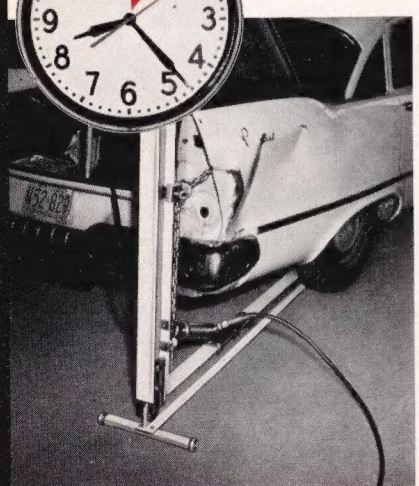
If unit tends to rise, suitable blocking can be used. A side tilt or sway means you have an offset, not a straight line pull. To correct this, another chain should be used to anchor unit in place. (See pg. 6)

To speed repairs in getting sheet metal back to original position use spring hammer while damaged metal is under tension. Roughing job then can be finished by routine hammering and dollying.

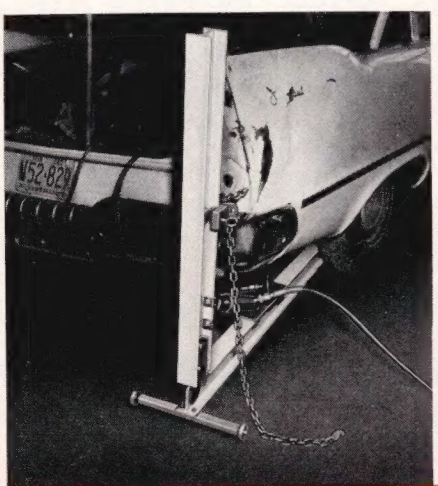
For detailed operating instructions, see sheet number H-387.

TIME SAVED ON THIS JOB— 1 HOUR

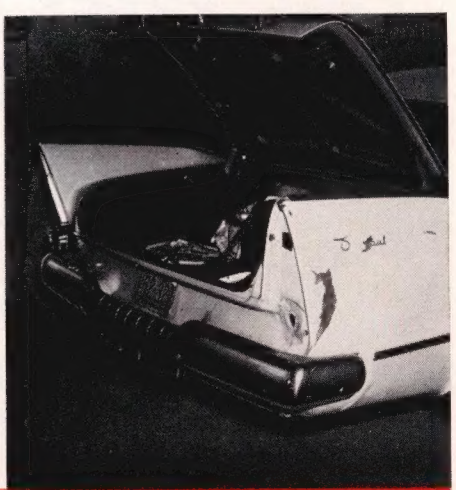
Pull - Dozer equips you to slash total job time . . . *handle more jobs . . . make more money on each job!*



1 Flat Pull Plate (see pg. 11) is inserted after punching small hole in damaged area so attachment can be tightened. Chain hook is attached to eyelet of Flat Pull Plate. The other chain hook is attached to sliding Mast Clamp on vertical leg for straight line pull.

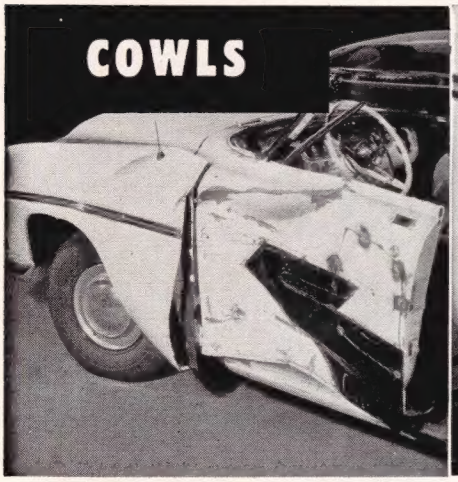


2 After removing as much damage as possible with the first set-up, a second hole is punched, attachment inserted and chain hooked up. After just a few strokes of the pump the rest of the damaged sheet metal is pulled out to its original shape.

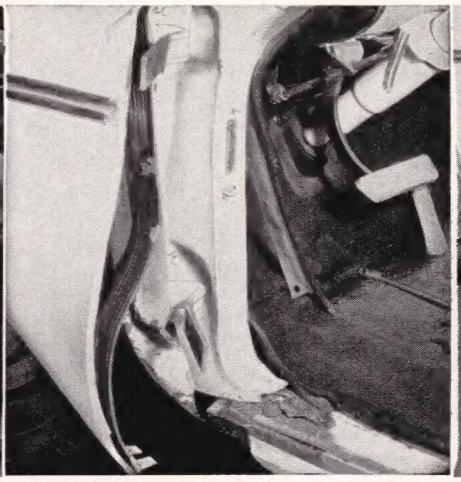


3 Job done! And it took just minutes! A little touching up and this shop has made extra profits in less time. This is the type of sheet metal pulling that's a natural for Pull-Dozer. You cut job time and make more money by repairing instead of replacing.

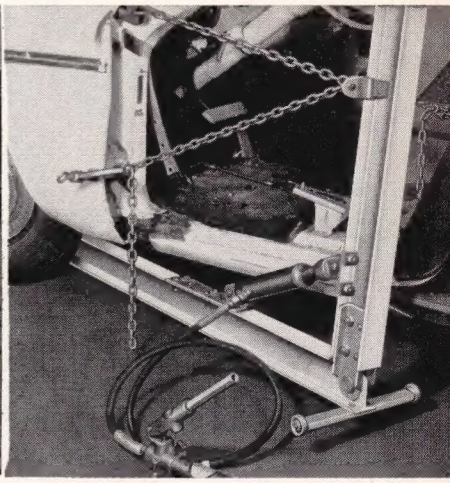
Actual step-by-step picture story shows how PULL-DOZER works all around the car! *On . . . . cowls, trunks, fenders, pillars, inner construction, quarter panels, bumpers.*



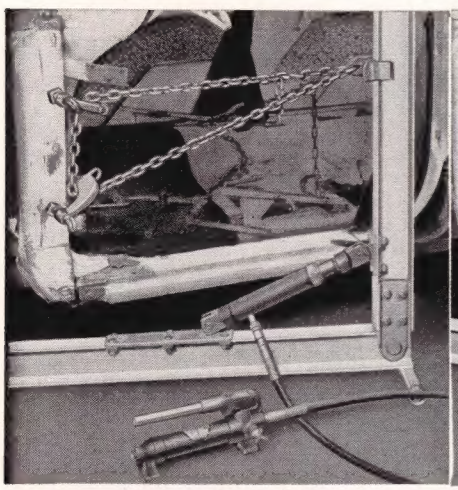
1 This new car was hit at an angle. The cowl and left front section are smashed way in. The door was ruined beyond repair and had to be replaced. The car was hit with such force that the cowl assembly was ripped off the rocker panel.



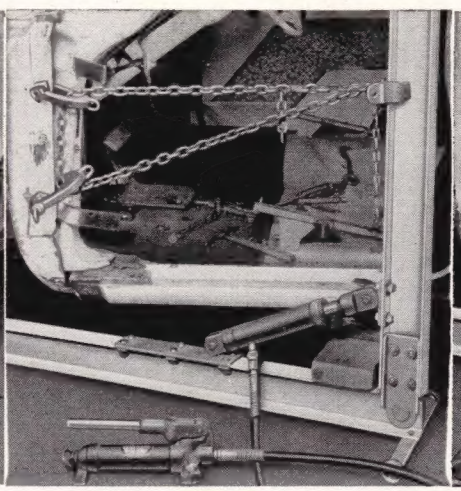
2 Notice how the pillar is pushed ahead seven inches. It takes a lot of power—power only hydraulics give you to correct damage like this.



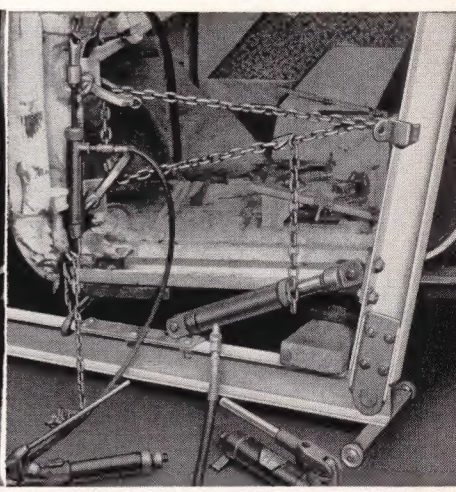
3 Pull-Dozer takes over. Two C-clamps (see pg. 11) are used here to align the cowl and fender sections **at the same time.** The fender section must be pulled back into alignment. Note use of another chain to stop tilt.



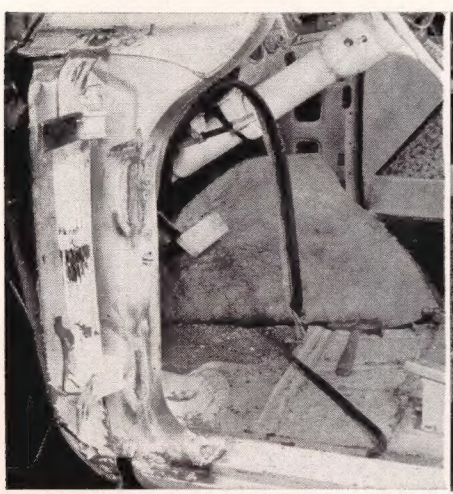
4 After the fender section is back in position, the C-clamps are placed on the cowl to pull it back in place. Power is applied evenly along the pillar giving a smooth, steady pull. Note separation of pillar and rocker panel.



5 The rocker panel and cowl sections are nearly brought together. Now only the rocker panel requires an upward realignment. This job only required two set-ups, using Pull-Dozer to realign the cowl and rocker panel to their original position.



6 A Porto-Power pull ram is used to pull up the rocker panel from the bottom and pull down the upper portion of the pillar where it connects to the roof. When hydraulic pressure was applied the sections realigned and were welded together.



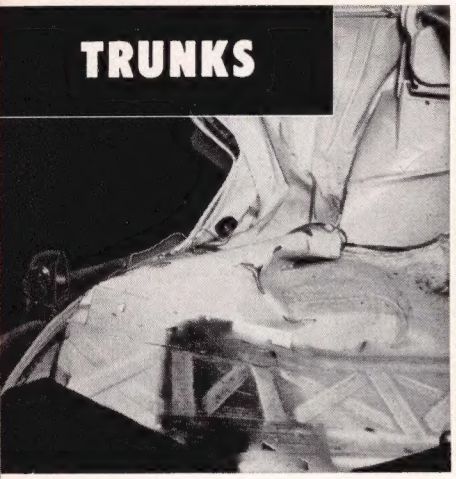
7 Pillar has now been re-aligned and welded in original position. Sheet metal requires minor hand working.

8 Here's the finished product ready for the customer! Pull-Dozer in the hands of a good bodyman has made this tough to repair section like new.

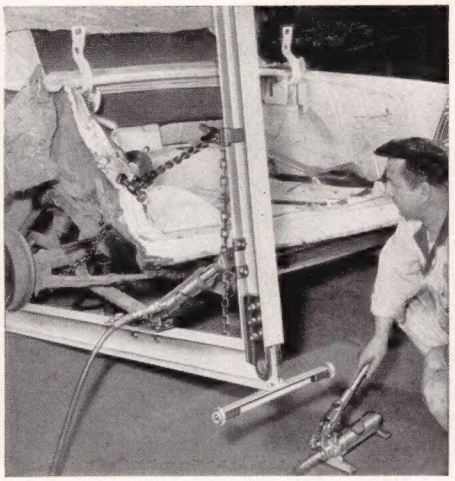
Job time slashed in half! Only hydraulic Pull-Dozer can quickly repair tough reinforced body sections like this . . . help you make lower bids, beat competition. Do more jobs with real ease, little effort and at a greater profit.

These illustrations show how Hydraulic **PULL-DOZERS**

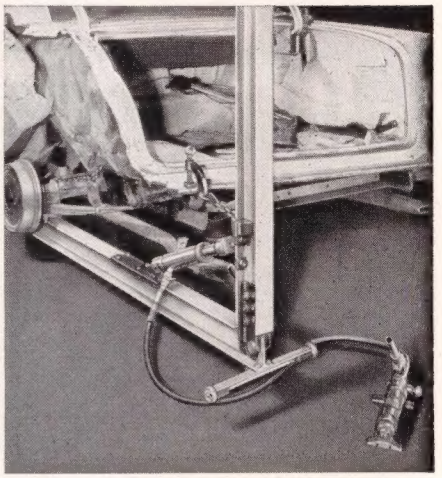
TRUNKS



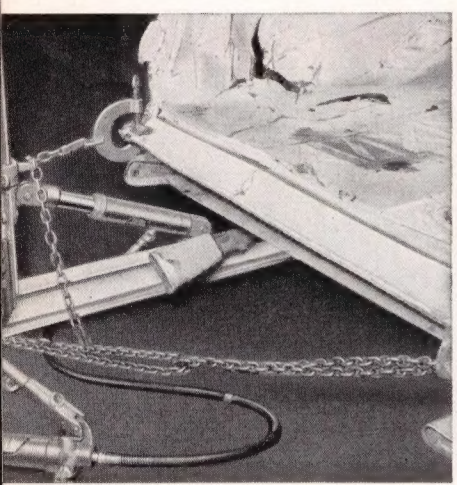
1 Extensive damage to trunk floor of late model car. The car was hit from behind, pushing in and severely twisting the floor. It is extremely difficult and costly to correct.



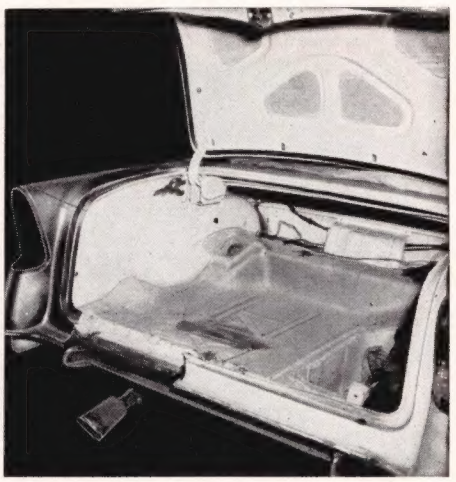
2 C-clamp (see pg. 11) is used to pull and untwist the sheet metal on the inner panel. This immediately relieves the stress on buckled up trunk floor, allows panel to be cut away.



3 Next pull—from same angle of damage—brings the trunk floor itself back towards original shape. C-clamp allows fast set-up changes.



4 Trunk floor back to near normal—heavy crease pulled out in minutes. Note the use of another chain to keep the unit from tilting. Slight hammering and dollying, under tension, restores floor to original shape

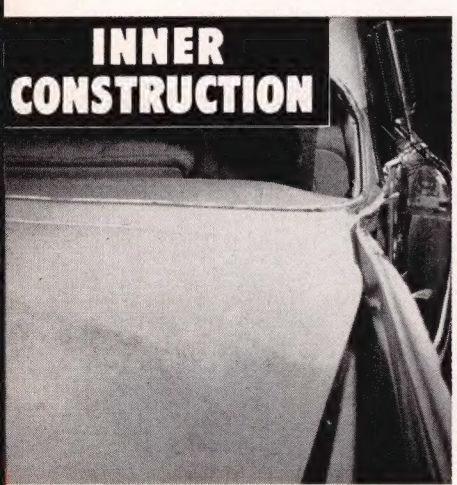


5 Look at the difference Pull-Dozer makes! And the biggest, most important difference—the **time** you **save**, the **profits** you **make** with the new Blackhawk tool. You'll realize you can't get along without one.

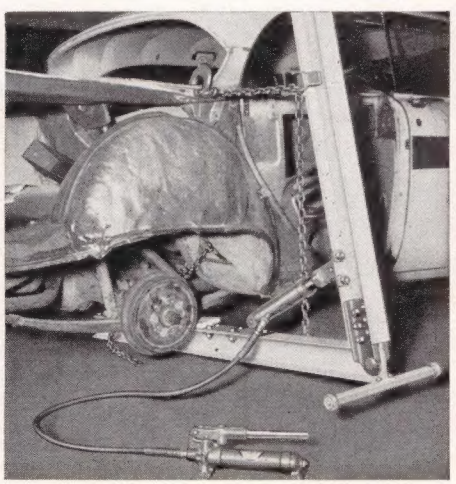
It's tough jobs like this on inner construction that can only be done with Pull-Dozer.

Now you can slash costly repair time . . . get more bids by repairing instead of replacing.

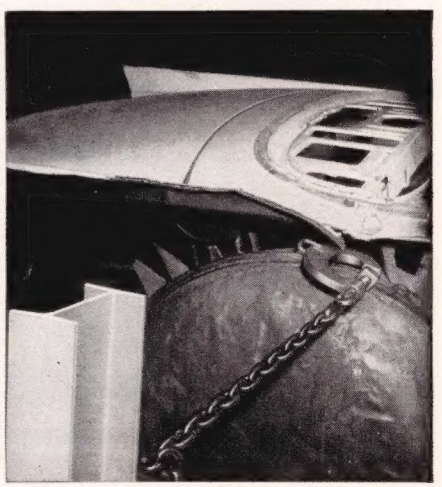
INNER CONSTRUCTION



1 Inner construction below rear window was damaged from impact to right rear quarter of this late model car. Pushed-up rear window deck must be returned to original shape.



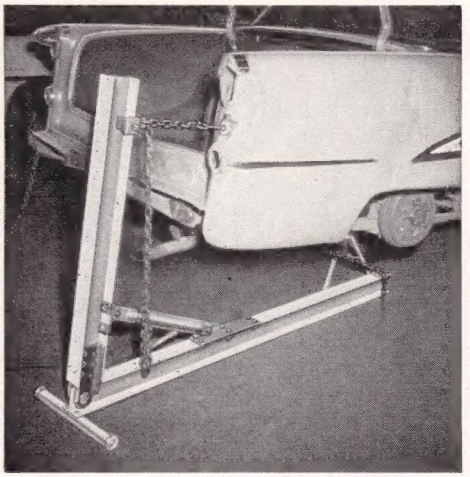
2 The door and outer panel are removed. Exerting a straight line pull near top of vertical leg, Pull-Dozer with C-clamp hook-up, (see pg. 11) reshapes fin contour, brings inner construction partly out with this pull.



3 The last pull is made on the flange of the inner panel. The damage has been taken out of the interior deck construction under the rear window with just a few simple set-ups.

slash body repair time....UP VOLUME and PROFIT

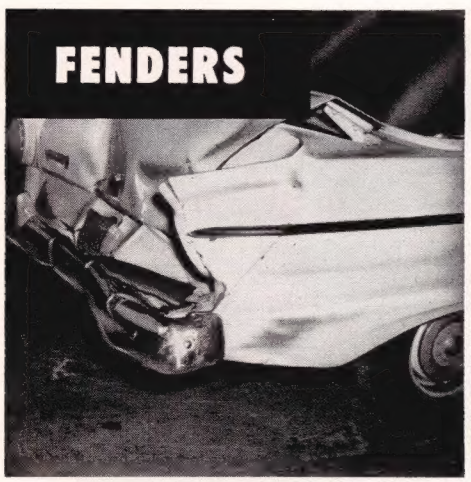
REAR QUARTER PANEL



1 A Flat Pull Plate (see pg. 11) has been inserted after a hole was punched in the sheet metal to pull rear quarter panel damage out in just one set-up.

2 Rear quarter roughed out and ready for finish dollying. Pull-Dozer made this job quick, easy and safe with remote controlled pump! No need to stand in line of pulling force!

For all pulls—there's the right attachment for every job . . . all around the car. These actual on-the-job photos are dramatic proof why it pays to repair. It's the fast, volume way to increase repair shop profits.



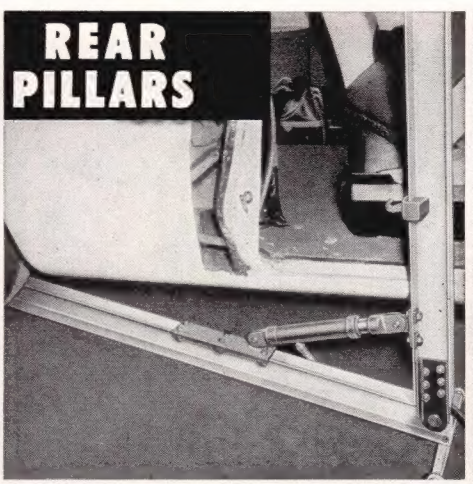
FENDERS

1 Damaged right rear fender of late model car. A big profit opportunity to repair, not replace when you're equipped with Pull-Dozer.

2 The tail light is removed and a Chain Pull Plate (see pg. 11) used to bring rear of fender back. Notice the pulling is in a straight line.

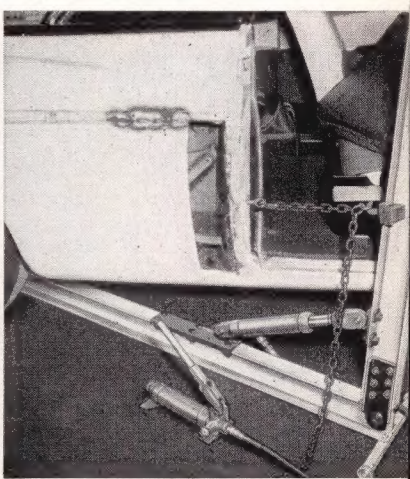
3 Here, Pull-Dozer sliding mast clamp has been set higher on the vertical beam to bring fender **out and up** to near original position.

4 Pull-Dozer does it again! Fender saved! That means Pull-Dozer can up your volume and profits by letting you repair **more**, replace less.



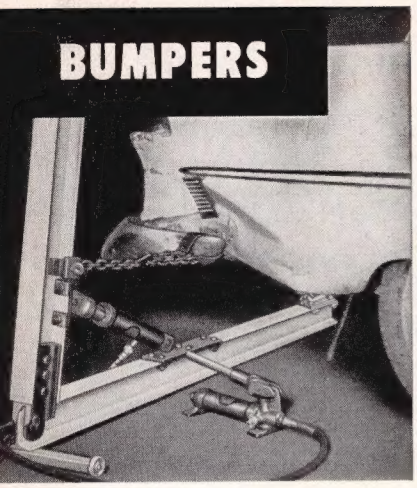
REAR PILLARS

1 Rough job! Note extensive damage to center pillar. A section of the rear fender has been cut away and a hole punched in the pillar so the Flat Pull Plate can be inserted.

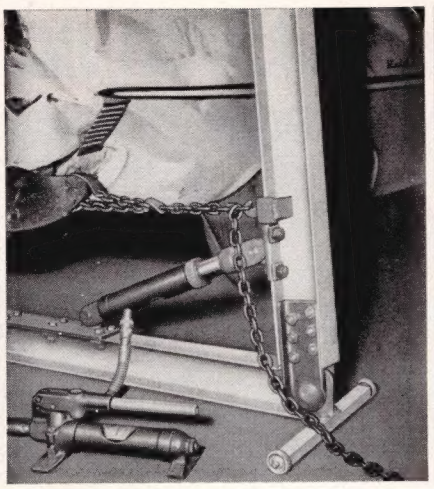


2 In seconds, using Pull Plate (see pg. 11) damaged pillar is easily pulled out without time-consuming hookups. Exclusive sliding mast clamp gives unit maximum adjustability.

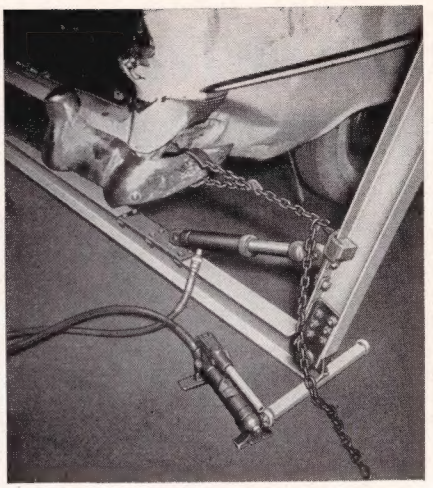
BUMPERS



1 Bumper is severely pushed in, damaging rear quarter panel. Bumper must be pulled away and straightened before sheet metal can be repaired. Bumper Chain Hooks (see pg. 11) are attached on bumper.

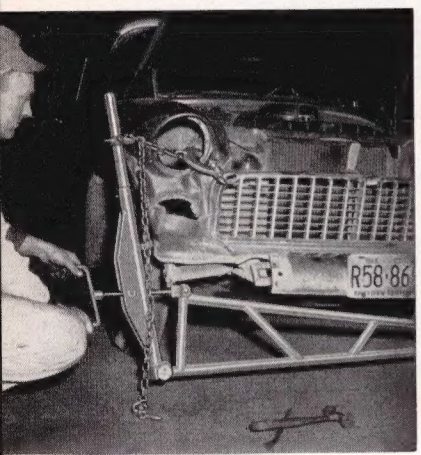


2 Pull-Dozer ram plunger is partly extended and bumper is beginning to straighten. Note how the chain makes a straight line between the damage and the Mast Clamp. The two hooks give even, strong pulling.



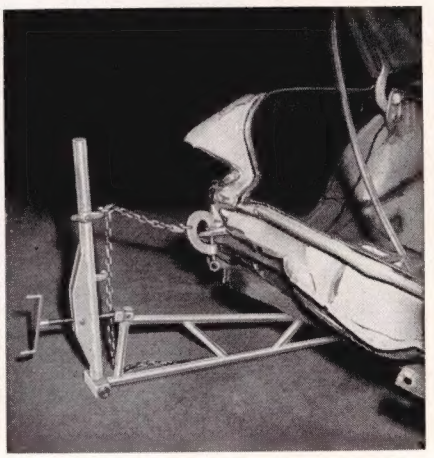
3 Another job done in minutes. Bumper is easily pulled back to original position, away from the damaged sheet metal. Just one of many instances where bumpers must be pulled away so body man can start repairs.

Budget-priced, rugged mechanical PULL-DOZER helps one man solve light sheet metal pulling problems . . . *here are individual idea starter set-ups*



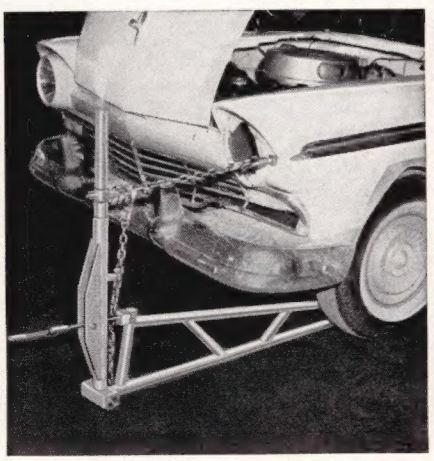
Wrinkled headlight section is pulled out with C-clamp (see pg. 11) and mechanical Pull-Dozer. Lightweight, yet rugged, this tubular steel mechanical Dozer is the budget priced answer to sheet metal pulling.

Bringing front of fender back to original position with Mechanical Pull-Dozer equipped with Bumper Chain Hook (see pg. 11). Variety of attachments greatly extends the range of pulling work you can do.

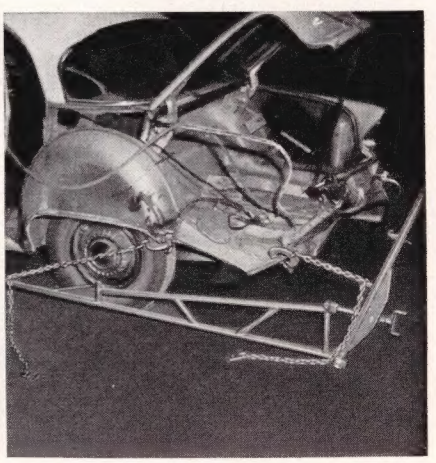


C-clamp (see pg. 11) bites into lower taillight area—holds most difficult flanges. Rear deck panel damage, usually hard to repair, is readily accessible with new Mechanical Pull-Dozer. Unit glides under for fast set-up.

C-clamp (see pg. 11) and Mechanical Pull-Dozer stretch creases out of light sheet metal to regain original length of right rear quarter panel. Lightweight Pull-Dozer can be carried or wheeled to job.



Re-aligning front fender section is quick and easy using Pull-Dozer and C-clamp attachment. Fender straightens out as Pull-Dozer handle is turned, repair completed with little effort.



Two C-clamps are so rigged to set up straight line power in repairing trunk floor. Mechanical Pull-Dozer features telescoping adjustment for easy extension of beam length for versatility.

Aluminum Construction...
Tough...Featherweight...
Portable...Hydraulic...

PULL-DOZERS

Double your body repair profits by getting more business by lowering bids with hydraulic

Model

EK-10

MODEL EK-10

Specifications

Length	75"
Height	46"
Weight	74 lbs.

Porto-Power Pull-Dozer profit-building features:

- **Hydraulic Power**—the only practical answer to pulling tough, reinforced sheet metal sections like cowls, pillars, posts, rocker panels. Tons of smooth power are at your fingertips to do the work for you.
- **Extra Strong**—Sturdy, lightweight aluminum alloy construction. Built to take years of grueling power pulling.
- **Really Portable**—Adds speed to your hookup! Free rolling casters glide like a breeze under a car or to the next job. Now you can take the tool to the work for greater volume, more profits!
- **Positive Anchoring**—Just slip the chain link around the toe hook and you're ready to work . . . **anywhere** around a car!
- **Completely Adjustable**—Adjust pull from anywhere along vertical beam. Sliding mast clamp lets you pull from any height with ease **and** from exact point of impact.
- **Job Designed Attachments**—Everything you need in one, compact set. Eliminates makeshift, shopmade parts forever because you can pull every body section with just one set of versatile attachments.

New Compact Pump—all the hydraulic power you need for those tough sheet metal jobs. Easy to carry, use! Built-in overload valve won't let you damage sheet metal, equipment.

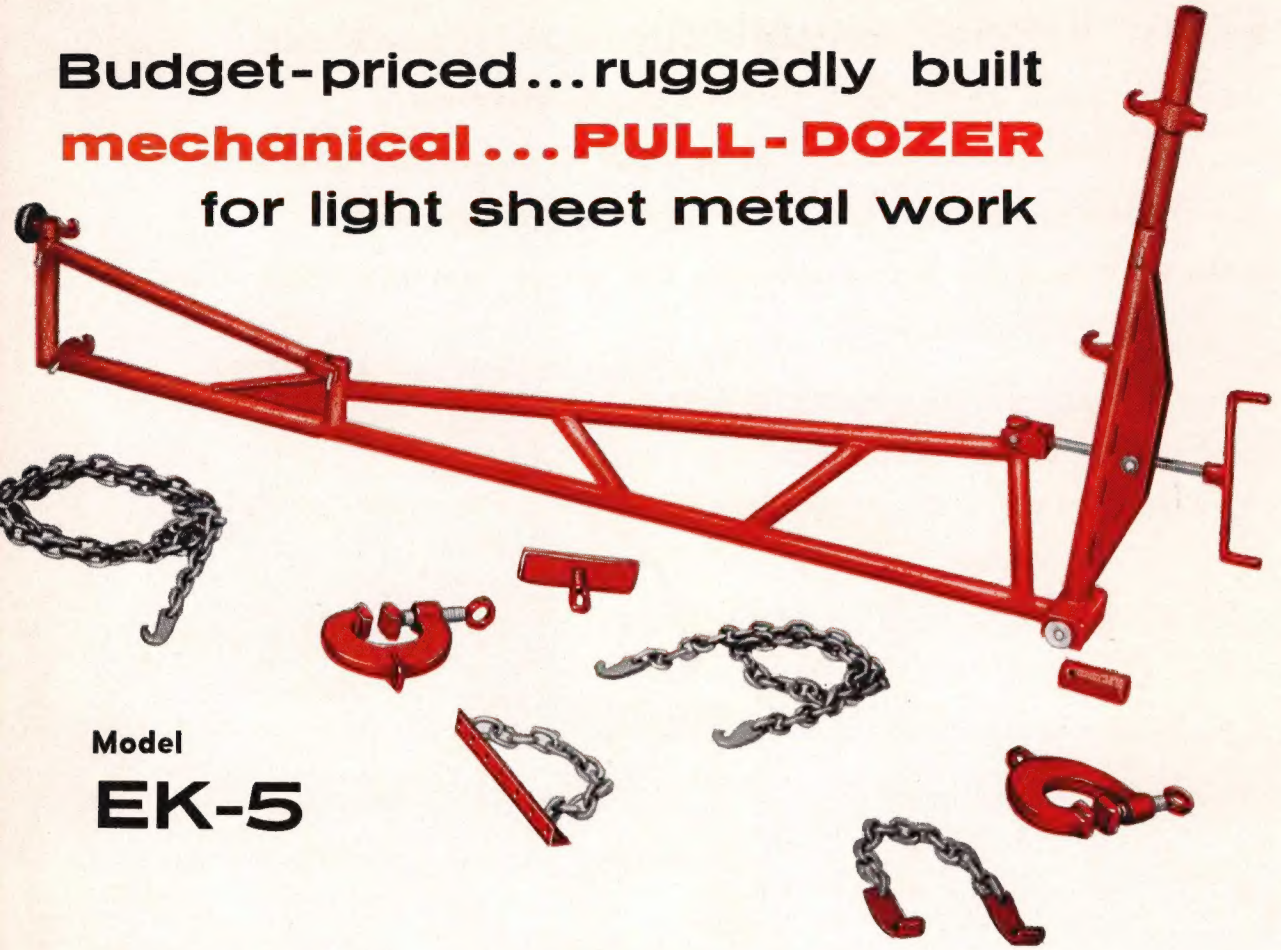
EK-10 KIT—Complete Porto-Power Pull-Dozer. Includes EK-11 hydraulic Pull-Dozer frame assembly, S-70 hydraulic pump, ram and hose and complete EK-8 attachment set, (see page 11.)

EK-12 Includes EK-11 Pull-Dozer frame assembly and S-70 pump, ram and hose hydraulic units.

EK-8 ATTACHMENT SET includes:

EK-221	4-foot chain with two hooks
EK-222	6-foot chain with one hook
EK-223	Flat Pull plate
EK-224	Bumper chain hook
EK-225	Panel Puller
EK-226	"C"-clamp (2)

Budget-priced...ruggedly built mechanical...PULL-DOZER for light sheet metal work



Model

EK-5

Cuts time, saves labor on light sheet metal repair jobs

- **Rugged Airplane Tubing**—Built with the strength of a Jet! Extra heavy box-hinged section gives added strength for those tough pulling jobs!

- **Wide Adjustability**—because for **extra** pulling points—greater versatility! Sliding vertical truss lets you make contact for straight line pulling **anywhere** along beam for more setups in less time!

- **Easy Turning Handle**—Smoother, easier turning because large, heat-treated screw turns IN not OUT! Easy-grip H-handle offers positive grip, less effort! Ball bearings give smoother, quicker turning!

- **Extra Versatility**—two anchor hooks let you push as well as pull . . . Allow more set-ups. You can do more jobs faster!

- **Budget Priced**—Here is the low cost tool every shop needs. Pays for itself in the first few jobs. Cash in on extra profits from damage the easy way!

EK-5 KIT—Includes EK-6 Mechanical Pull-Dozer Frame and EK-8 attachment set. (See page 11)

EK-6—Mechanical Pull-Dozer Frame.

EK-8 ATTACHMENT SET includes:

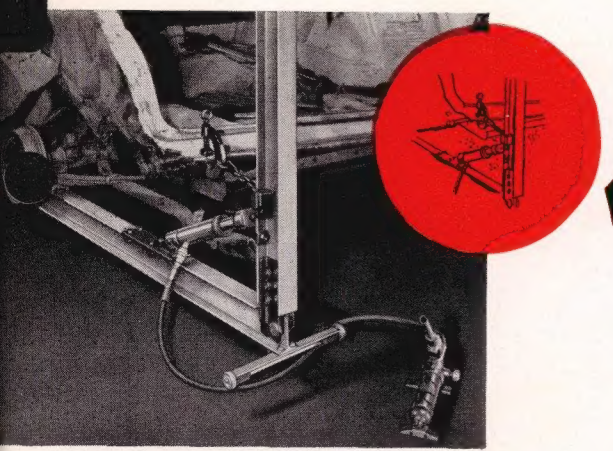
EK-221	4-foot chain with two hooks
EK-222	6-foot chain with one hook
EK-223	Flat Pull Plate
EK-224	Bumper chain hook
EK-225	Panel Puller
EK-226	"C"-clamp (2)

Specifications

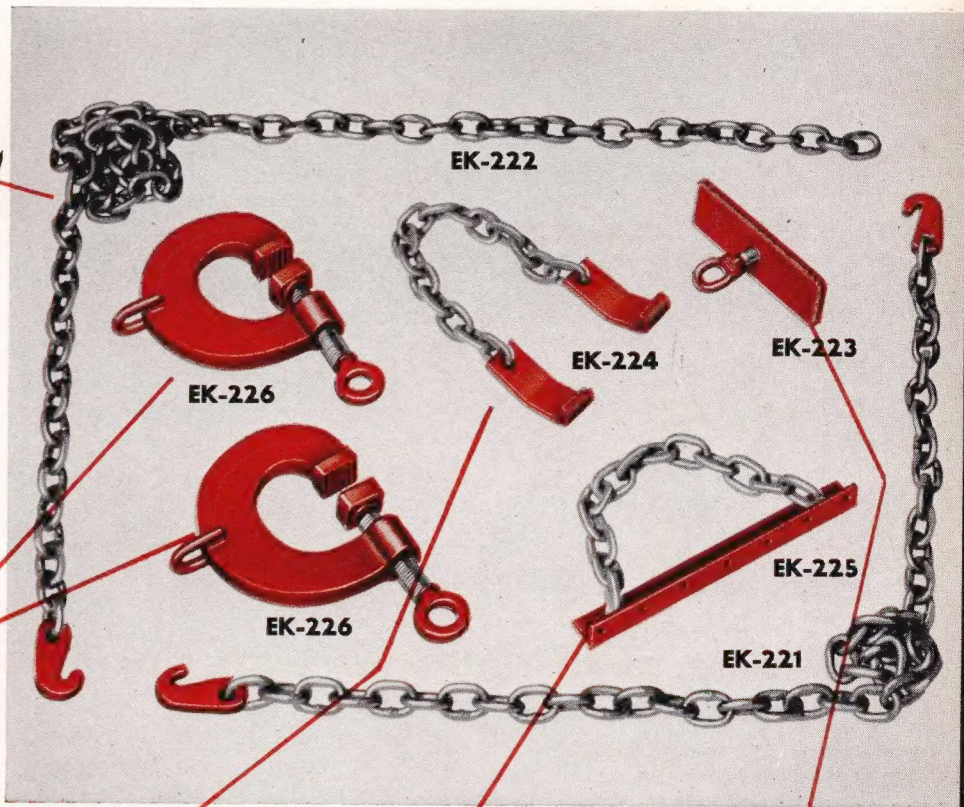
Overall length, inches	87
Overall height, inches (with ext.)	38
Overall height, inches (w/o ext.)	25
Weight, pounds	27½

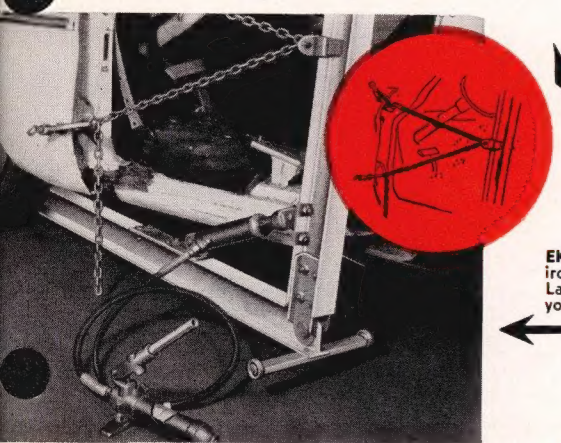
Make quicker, easier set-ups – pull out damaged quarter panels, fenders and doors . . . pillars, hoods, floors, grilles, bumpers, etc.– all the job designed attachments you need in one complete set . . .

EK-8 ATTACHMENT SET—Included in EK-10 and EK-5 Kits



EK-221 4-foot chain and EK-222 6-foot chain—made of large, specially heat-treated links to go over frame hooks. EK-226 is used for anchoring on frame or frame cross member. EK-221 with 2 hooks is most versatile, positive pulling component.



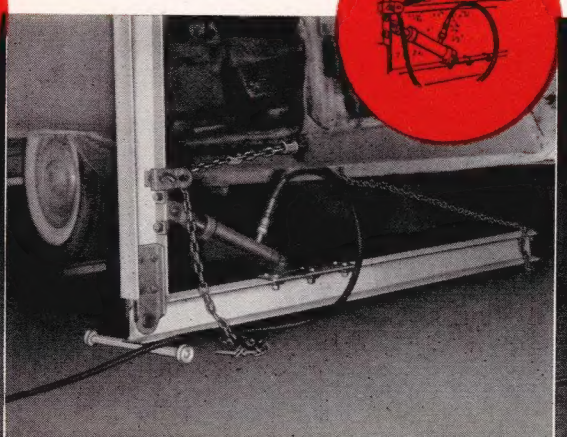


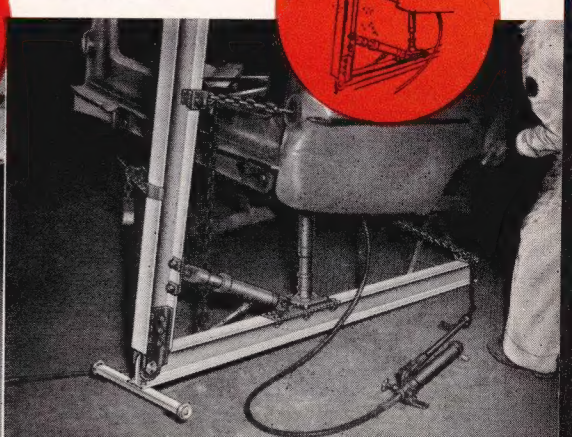
EK-226 C-clamps (2) are heat-treated malleable iron. Serrated bottom jaw "bites in" and holds. Large screw provides high holding power. Ring lets you apply additional leverage for final tightening.

EK-224 Bumper Chain Hook—Hooks on both ends of chain, grips bumpers, quarter panels, etc. Can be used where edge exists to offer a solid holding point.

EK-225 Panel Puller is equipped with several holes for receiving bolts. Damaged area is drilled and plate is bolted on, ready for pulling. Chain on plate offers positive grip.

EK-223 Flat Pull Plate—Pulls out sheet metal sections where other attachments will not go. Eyelet on panel puller offers means for attaching of chain to puller.

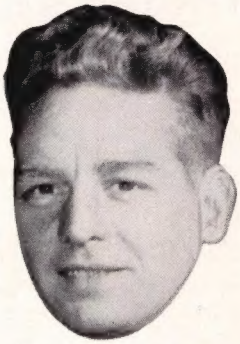




Here are amazing actual success stories with new Blackhawk PULL-DOZERS...

proof that PULL-DOZERS *answer your modern body repair problems!*

"We're repairing not replacing!" says John Kievi, Ennis Motors—"The body shop foreman got a Porto-Power Pull-Dozer for us to try. First thing we knew our body shop volume went up. He found out we were **repairing** more than we were **replacing.** And we could use two more Pull-Dozers right now. It's the only body jack we've seen that efficiently takes out sheet metal damage from outside the car!



"Cuts my hours way down—saves me trouble on late-model car bodies," says Bert Pfaff, Brownell's Body Shop. "I've used Porto-Power Pull-Dozer and I've seen what it can do. Pulls damage straight out from outside the body. I don't have to rip out upholstery —waste time figuring out fancy 2 and 3-jack setups . . . look for good anchoring points. Pull-Dozer's a real time and labor saver. It's making money for me like nothing else can!"

"No more pulling from poles and floor rings for me!" says Lawrence Smith, Allis Autobody. "I just fixed a busted up trunk section on a '57 DeSoto and made a **good profit** doing it! Pull-Dozer **made** the difference. Before I would have had to drive away from an anchor ring or pole. Now I can tension with Pull-Dozer and dolly metal as I go. It's neat, clean, safe and fast. I take the tool to the job. I've landed more jobs with Pull-Dozer! There's no denying it's a dandy!"

I'm really competitive in my bids since I bought a Pull-Dozer. I've cut my set-up time over one-half and that means money in my pocket. Before it was almost impossible to get behind or inside to push out damage on today's streamlined cars. Now all I do is set Pull-Dozer up and pump. It's a lot easier, faster and saves me many a set-up headache. There's no searching for a shopmade attachment that I'm not sure will work . . . Everything is at my fingertips. You bet I'm sold on Pull-Dozer. There's nothing like it on the market!

Don't let Pull-Dozer profit-making power pass you by! This is your chance to bid low on every body repair job . . . increase volume and up your profits.

Call your jobber right now for your Pull-Dozer . . . Don't wait . . . don't attempt to repair modern car bodies without a modern Pull-Dozer!

BLACKHAWK

BLACKHAWK MFG. CO.
MILWAUKEE 46, WIS.

"WORLD'S LARGEST MANUFACTURER OF HYDRAULIC TOOLS!"

H-383-759-10M-1

PRINTED IN U.S. of A.